



AMERICAN BUREAU OF SHIPPING

Drydocking Survey

CHECKLIST

Vessel Name	DEEPWATER HORIZON	Class Number	0139290
Last Visit Date	13-Sep-2009	Report Number	MC1722260-D

Checklist Item(s): All

Seq No	Description	Yes	No	N/A	Done	Date
	<p>Plans and procedures for Special Surveys, Drydocking Surveys, and Underwater Inspections in Lieu of Drydocking are to be made available onboard for the purpose of carrying out an on-board pre-planning of the survey with the Surveyor.</p> <p>The planning document is intended to identify critical structural areas and to stipulate the minimum extent, location and means of close up inspection, extent and type of NDT, and thickness measurements with respect to the major structural components as well as to nominated areas.</p> <p>The document should be worked out by the Owner in co-operation with the Bureau and submitted for review well in advance of the survey.</p> <p>The basis for nomination of the critical structural areas is an assessment in consideration of possible deterioration and designated fatigue prone areas where the following elements on a particular unit are taken into account:</p> <ul style="list-style-type: none"> • Design feature with relatively low fatigue life • Former history available at Owner's or ABS offices with respect to corrosion, cracking, buckling, indents and repairs for the particular unit as well as similar units • Unit's service history since last survey (e.g., area of operation, environmental data, water depth, air gap for SEDU's, length of time at each location etc.) <p>The degree of criticality should be judged and decided on the basis of the units structural and fatigue analyses and recognized principles and practice.</p> <p>The planning document should contain:</p> <ul style="list-style-type: none"> • Main particulars • Plans to include details of major brace and column connections on column-stabilized units and details of leg and leg-to-spudcan connections • Jackhouse/jackcase-to-deck connections, on self-elevating units • Detailed information on NDT methods and locations • List of tanks with information on use, protection and condition of coating • Corrosion risk of tank and other major structural members • Design risk nomination of major structure • Nomination of areas for close up surveys and NDT • Nomination of areas of structure for thickness measurement • List of acceptable corrosion allowance of different structures • Method and extent of cleaning inspection points 					
1	<p>Extensive close up visual examination and Nondestructive Testing (NDT) of the major joints is to be carried out at each UWILD and Special Survey. 100% of the joints are to be subjected to this type of survey within a 5-year period after the completion of the 3rd special survey. The of number joints and associated internal continuation and back-up structure, plus any gussets or brackets that are to be subjected to NDT is to be determined by the Owner and the Bureau with consultation of the fatigue analysis and</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



AMERICAN BUREAU OF SHIPPING

Drydocking Survey

CHECKLIST

Vessel Name	DEEPWATER HORIZON	Class Number	0139290
Last Visit Date	13-Sep-2009	Report Number	MC1722260-D

Checklist Item(s): All

Seq No	Description	Yes	No	N/A	Done	Date
	NDT results of previous surveys.					
	The following is an outline of some of the areas that will be subjected to close visual examination and extensive NDT at the UWILD and/or Special Surveys:					
2	i. Horizontal and diagonal bracing to columns and upper hull, together with gussets and brackets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3	ii. Horizontal and diagonal bracing to pontoons, upper hull and columns, together with gussets and brackets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4	iii. Internal back-up structure for the above	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
5	iv. Brace-to-brace connections, together with gussets and brackets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
6	v. Column connection to lower and upper hulls	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7	vi. Fairleader connections to columns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
8	vii. Highly stressed areas in way of the moon pool	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
9	External surfaces of the upper hull or platform, footings, pontoons or lower hulls, underwater areas of columns, bracing and their connections, as applicable, are to be selectively cleaned and examined.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
10	Nondestructive testing may be required of areas found to be suspect.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
11	Sea chests and strainers are to be cleaned and examined.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
12	External portions of propulsion units are to be examined.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	In conjunction with Drydocking Surveys (or equivalent) after Special Survey No. 1 and between subsequent Special Surveys, the following ballast and preload spaces are to be internally examined and the effectiveness of coatings or corrosion control arrangements are to be verified either visually, by indicator strips or by thickness gauging (as considered necessary), placed in satisfactory condition, as found necessary, and reported upon.					
13	Representative ballast tanks in footings, lower hulls or free-flooding compartments as accessible, and at least two ballast tanks in columns or upper hull, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	All tanks and voids which are to be internally examined are to be thoroughly ventilated and gas-freed prior to being entered and are to be carefully monitored for pocketing or emissions of hazardous gases during examination.					
14	For Underwater Inspection in Lieu of Drydocking Survey associated with Special Surveys, means are to be provided to permit the opening up of all sea valves for internal examination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Following are the procedures and conditions under which a properly conducted underwater inspection may be credited as a Drydocking Survey.					
	Underwater Inspection in lieu of Drydocking Survey may not be acceptable where there is record of abnormal deterioration or damage to the underwater structure, or where damage affecting the fitness of the unit is found during the course of the survey.					



AMERICAN BUREAU OF SHIPPING

Drydocking Survey

CHECKLIST

Vessel Name	DEEPWATER HORIZON	Class Number	0139290
Last Visit Date	13-Sep-2009	Report Number	MC1722260-D

Checklist Item(s): All

Seq No	Description	Yes	No	N/A	Done	Date
	Underwater or internal thickness gaugings of suspect areas may be required in conjunction with the underwater inspection. Means for underwater nondestructive testing may also be required for fracture detection.					
15	<p>Approved plans and procedures for the survey are to be made available onboard for the purpose of carrying out an onboard preplanning of the survey with the Surveyor. These should include nomenclature of underwater parts and drawings or forms for laying out the areas to be surveyed, the extent of hull cleaning, nondestructive testing locations (including NDT methods) and for mapping damage or deterioration found. The examination of items associated with the Special or Continuous Surveys and Tail Shaft Surveys is to be included in the plans.</p> <p>The areas to be surveyed are to be sufficiently clean and the sea water clear enough to permit meaningful examination and photography (if necessary) by the diver. Overall or spot cleaning may be required by the attending Surveyor.</p> <p>The following physical features are to be incorporated into the unit's design in order to facilitate the underwater inspection. When verified, they will be noted in the unit's Classification for reference at subsequent surveys.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
16	For self-propelled units, means are to be provided for ascertaining that the seal assembly on oil-lubricated bearings is intact and for verifying that the clearance or wear-down of the stern bearing is not excessive. For oil-lubricated bearings, this may only require accurate oil-loss-rate records and a check of the oil for contamination by sea water or white metal. For wood or rubber bearings, an opening in the top of the rope guard and a suitable gauge or wedge would be sufficient for checking the clearance by a diver. For oil-lubricated metal stern bearings, wear-down may be checked by external measurements between an exposed part of the seal unit and the stern tube bossing, or by use of the unit's wear-down gauge, where the gauge wells are located outboard of the seals, or the unit can be tipped. For use of the wear-down gauges, up-to-date records of the base depths are to be maintained onboard. Whenever the stainless steel seal sleeve is renewed or machined, the base readings for the wear-down gauge are to be re-established and noted in the unit's records and in the survey report.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
17	For self-propelled units with rudders, means and access are to be provided for determining the condition and clearance of the rudder bearings, and for verifying that all parts of the pintle and gudgeon assemblies are intact and secure. This may require bolted access plates and a measuring arrangement.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
18	Means are to be provided to enable the diver to confirm that the sea suction openings are clear. Hinged sea suction grids would facilitate this operation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
19	Means must be provided to examine any sea valve for the Drydocking Survey (Underwater Inspection) associated with the Special Survey.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
20	An examination of the outside of the structure above the waterline is to be carried out by the Surveyor. Means and access are to be provided to enable the Surveyor to accomplish visual inspection and nondestructive testing, as necessary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
21	An examination of the entire unit below the waterline is to be carried out by a suitably qualified diver using closed-circuit television with two-way communication capable of being monitored by the Surveyor, as required, or photographic documentation, or both, depending on the age and type of unit. This is to be supplemented by the Diver's Report,	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



AMERICAN BUREAU OF SHIPPING

Drydocking Survey

CHECKLIST

Vessel Name	DEEPWATER HORIZON	Class Number	0139290
Last Visit Date	13-Sep-2009	Report Number	MC1722260-D

Checklist Item(s): All

Seq No	Description	Yes	No	N/A	Done	Date
	<p>describing and attesting to the conditions found. A copy of this diver's report and pertinent photographs are to be submitted to the attending Surveyor for retention at the local office for five (5) years. Copies are also to be retained onboard, together with any video tapes, for reference.</p> <p>Damage areas are to be photographed. Internal examination, measurements, marking and thickness gauging of such locations may be a necessary adjunct as determined by the attending Surveyor. Means are to be provided for locating, orienting and identifying underwater surfaces in photographs or on video tapes.</p> <p>The Bureau is prepared to consider alternatives to the above guidelines and would be pleased to consult with interested clients concerning means and details for accomplishing results no less effective.</p>					
22	1. The appropriate Divisional Assistant Chief Surveyor has given authorization for an UWILD or has formalized approval already been given (see status).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
23	2. Hull thickness gaugings were taken at this time and forwarded to the applicable ABS gauging review office.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

Surveyor(s) to The American Bureau of Shipping
Attending Surveyors

McDurmon, Joseph Edward	Electronically Signed
Chinni, Venkata Raj	Electronically Signed